Intent

At Manor Park Academy, the Design and Technology curriculum teaches children the knowledge and skills to enable them to tackle real life problems; it can improve analysis, problem solving, practical capability and evaluation skills. Our DT curriculum ensures full coverage of the National Curriculum and to ensure strong progress is made, we link learning in DT to learning in other subjects such as mathematics, science, computing and art to ensure children are deepening their understanding as they progress through the school.

The curriculum for design and technology ensures that all pupils:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world;
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users;
- critique, evaluate and test their ideas and products and the work of others;
- understand and apply the principles of nutrition and learn how to cook.

Implementation

Teachers are provided with support to plan their curriculum through our school's CPD offer, inset days and staff meetings. Design Technology is taught through projects linked to learning adventures. It is also linked to 11 before 11 (11 specific enrichment activities that all children in REAch2 schools participate in during their journey through primary school). The 11 before 11 promise 'seeds to supper' is linked to DT.

To ensure progression in knowledge and skills, teachers plan the following:

- A clear sequence of learning which develops progression of skills and knowledge
- A clear focus on technical vocabulary which progresses over time;
- The sequence of lessons for each subject, should have careful planning for progression and depth;
- A project-based approach with clear stages for enquiry, design, making and evaluating;
- A fantastic finish with means to display and celebrate the pupils' work and to share their learning with parents and the local community.

Year Group	Autumn	Spring	Summer	
Year 1	Me and My World	Play with me!	Let's go! - Transport and Travel	
	Puppets	Paper Toys	Ftuit and Yoghurt Pots	
Year 2	Once upon a castle!	Home sweet Home	Let's go to Jamaica!	
	Catapult	Flat bread with tomoto topping	Tie Dye Bandanas	
Year 3	Tomb Raiders – Ancient Egypt	Rumble in the Jungle	Marvellous Mexico!	
	Sarcophagus	Mini Green houses	Paella	
Year 4	A land of Stone and Iron	River deep, Mountain High	The Age of Empire – Romans	
	Sewing a stone age bag/satchel	Pop up books	Soups and bread	
Year 5	Raiders from the North	To infinity and beyond!	Tudors: Terrific or Terrifying?	
	Pasta Pomodoro and Salad	Moon Buggies	Tudor Satchel	
Year 6	The World at War – World War Two	Children of the Revolution	America – The triangle of trade and the slave trade	
	Vegetable and Bean Fajitas Guacamole Homemade Tortilla Wraps	Wire loop game	Underground Railroad quilt	

Cooking skills progression	When?	I	ing	Measuring/M	ping	ng	pū	g	Combining/Mi	ding	Boiling/Simm	Squeezing	ng	ng	ling	ing	ping	iing
Year Group			Washing	Meas	Chopping	Serving	Frying	Rolling	Comb	Kneading	Boilir	Sque	Peeling	Grating	Blending	Crushing	Scooping	Mashing
Year 1 Fruit Pots and Yoghurts	Summer	Travel and transport Fruits of the world																
Year 2 Flat bread pizzas with tomato topping	Spring																	
Year 3 Paella	Summer																	
Year 4 Soup (Leek and Potato, Carrot and Coriander) and bread.	Summer																	
Year 5 -Pasta Pomodoro With side salad	Autumn																	
Year 6 -Vegetables and Bean Fajitas -Homemade tortilla wraps -Guacamole	Autumn																	

National Curriculum

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum Pupils should be taught:	 Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Share their creations, explaining the process they have used. 	appealing pro and other use criteria 2. generate, dev communicate talking, drawi ups and, when information a technology 3. select from an and equipmen tasks [for exal joining and fir 4. select from an materials and including cons textiles and in to their chara 5. explore and ev existing produ 6. evaluate their against design 7. build structure	od use a wide range of components, struction materials, gredients, according cteristics valuate a range of acts	functional, a individuals of annotated standards. 2. generate, destand of annotated standards. 3. select from a construction properties and construction properties at the views of an apply their uncomplex struction properties and a circuits inconstruction. 9. understand of pulleys, cams apply their unconstruction properties at the views of apply their uncomplex struction. 11. apply their unproducts. 12. understand of apply their unproducts.	welop, model and communication, model and communications, cross-sectional and manufactures a wider range of the materials, textiles and influence and products against and aesthetic qualities and analyse a range of existing and products against the world anderstanding of how to succure and use mechanical systems and use electrical systems and use electrical systems and use electrical systems and apply the principles of cook a variety of predominant apply the principles of cook a variety of predominant and apply the principles of cook a variety of predominant apply the principles of cook a variety of predominant and apply the principles of cook a variety of predominant apply the principles of cook a variety of	re fit for purpose, aim re fit for purpose, and equipment to poining and finishing], materials and compose gredients, according fits their own design for kertengthen, stiffen and the fit for products [for buzzers and motors] and to program, monith of a healthy and varied fit a healthy and varied fits fit for purpose, aim their products [for buzzers and motors] and to program, monith fits healthy and varied fits fit for purpose fit for purpose fit fits fit for purpose fit fit fits fit for purpose fit fit fit for purpose fit	red at particular rough discussion, s, prototypes, pattern to perform practical accurately nents, including to their functional criteria and consider echnology have d reinforce more for example, gears, r example, series for and control their

	 8. explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. 9. use the basic principles of a healthy and varied diet to prepare dishes 1. understand where food comes from. 	14. understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.
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Progression in Skills and Knowledge

Level Expected at the end of Early Years:

Skills

Design

- *Select appropriate resources
- *Use gestures, talking and arrangements of materials and components to show design
- * Use contexts set by the teacher and myself
- *Use language of designing and making (join, build, shape, longer, shorter, heavier etc.)

Make

- *Construct with a purpose, using a variety of resources
- *Use simple tools and techniques
- *Build / construct with a wide range of objects
- *Select tools & techniques to shape, assemble and join
- *Replicate structures with materials / components
- *Discuss how to make an activity safe and hygienic
- *Record experiences by drawing, writing, voice recording
- *Understand different media can be combined for a purpose

Evaluate

- *Adapt work if necessary
- *Dismantle, examine, talk about existing objects/structures
- *Consider and manage some risks
- *Practise some appropriate safety measures independently
- *Talk about how things work
- *Look at similarities and differences between existing objects / materials / tools
- *Show an interest in technological toys
- *Describe textures

Knowledge

Food and Nutrition

- *Begin to understand some food preparation tools, techniques and processes
- *Practise stirring, mixing, pouring, blending
- *Discuss how to make an activity safe and hygienic
- *Discuss use of senses
- *Understand need for variety in food
- *Begin to understand that eating well contributes to good health

Skills	KS1	LKS2	UKS2
Design	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing.	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing.	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing.
	They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].	They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment]. Children use research and develop design criteria to	They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment]. Children use research and develop design criteria to



Children design purposeful, functional, appealing products for themselves and other users based on design criteria.

They generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.

Children can:

- a use their knowledge of existing products and their own experience to help generate their ideas;
- b design products that have a purpose and are aimed at an intended user;
- explain how their products will look and work through talking and simple annotated drawings;
- d design models using simple computing software;
- e plan and test ideas using templates and mock-ups;
- f understand and follow simple design criteria;
- g Work in a range of relevant contexts, for example, imaginary, story-based, home, school and the wider environment.

inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.

They generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design.

Children can:

- a identify the design features of their products that will appeal to intended customers:
- b use their knowledge of a broad range of existing products to help generate their ideas;
- design innovative and appealing products that have a clear purpose and are aimed at a specific user;
- d explain how particular parts of their products work;
- use annotated sketches and cross-sectional drawings to develop and communicate their ideas;
- when designing, explore different initial ideas before coming up with a final design;
- g when planning, start to explain their choice of materials and components including function and aesthetics;
- h test ideas out through using prototypes;
- use computer-aided design to develop and communicate their ideas (see note on p. 1);
- j develop and follow simple design criteria;
- k work in a broader range of relevant contexts, for example entertainment, the home, school,

inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.

They generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design.

Children can:

- use research to inform and develop detailed design criteria to inform the design of innovative, functional and appealing products that are fit for purpose and aimed at a target market;
- b use their knowledge of a broad range of existing products to help generate their ideas;
- c design products that have a clear purpose and indicate the design features of their products that will appeal to the intended user;
- d explain how particular parts of their products work:
- e use annotated sketches, cross-sectional drawings and exploded diagrams (possibly including computer-aided design) to develop and communicate their ideas:
- f generate a range of design ideas and clearly communicate final designs;
- g consider the availability and costing of resources when planning out designs;
- h work in a broad range of relevant contexts, for example conservation, the home, school, leisure, culture, enterprise, industry and the wider environment.

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KS1 Design and Technology National Curriculum

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of making.

Children select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. They select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

Children can:

Planning

- a with support, follow a simple plan or recipe;
- b begin to select from a range of hand tools and equipment, such as scissors, graters, zesters, safe knives, juicer;
- select from a range of materials, textiles and components according to their characteristics;

Practical skills and techniques

- d learn to use hand tools and kitchen equipment safely and appropriately and learn to follow hygiene procedures;
- use a range of materials and components, including textiles and food ingredients;
- f with help, measure and mark out;
- g cut, shape and score materials with some

leisure, food industry and the wider environment.

KS2 Design and Technology National Curriculum

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of making.

Children select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] accurately.

They select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.

Children can:

Planning

- with growing confidence, carefully select from a range of tools and equipment, explaining their choices;
- select from a range of materials and components according to their functional properties and aesthetic qualities;
- c place the main stages of making in a systematic order;

Practical skills and techniques

- learn to use a range of tools and equipment safely, appropriately and accurately and learn to follow hygiene procedures;
- e use a wider range of materials and components,

KS2 Design and Technology National Curriculum

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of making.

Children select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.

They select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.

Children can:

Planning

- a independently plan by suggesting what to do next:
- with growing confidence, select from a wide range of tools and equipment, explaining their choices;
- select from a range of materials and components according to their functional properties and aesthetic qualities;
- d create step-by-step plans as a guide to making;

Practical skills and techniques

- learn to use a range of tools and equipment safely and appropriately and learn to follow hygiene procedures;
- f independently take exact measurements and

a explore and evaluate existing products

Evaluate	 i demonstrate how to cut, shape and join fabric to make a simple product; j manipulate fabrics in simple ways to create the desired effect; k use a basic running stich; l cut, peel and grate ingredients, including measuring and weighing ingredients using measuring cups; m begin to use simple finishing techniques to improve the appearance of their product, such as adding simple decorations. KS1 Design and Technology National Curriculum	 f with growing independence, measure and mark out to the nearest cm and millimetre; g cut, shape and score materials with some degree of accuracy; h assemble, join and combine material and components with some degree of accuracy; i demonstrate how to measure, cut, shape and join fabric with some accuracy to make a simple product; j join textiles with an appropriate sewing technique; k begin to select and use different and appropriate finishing techniques to improve the appearance of a product such as hemming, tie-dye, fabric paints and digital graphics. 	materials and kits, textiles, and mechanical components; h cut a range of materials with precision and accuracy; i shape and score materials with precision and accuracy; j assemble, join and combine materials and components with accuracy; k demonstrate how to measure, make a seam allowance, tape, pin, cut, shape and join fabric with precision to make a more complex product; l join textiles using a greater variety of stitches, such as backstitch, whip stitch, blanket stitch; m refine the finish using techniques to improve the appearance of their product, such as sanding or a more precise scissor cut after roughly cutting out a shape. KS2 Design and Technology National Curriculum
Lvaluate	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. Children explore and evaluate a range of existing products. They evaluate their ideas and products against design criteria. Children can:	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. Children investigate and analyse a range of existing products. They evaluate their ideas and products against their own design criteria and consider the views	Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. Children investigate and analyse a range of existing products. They evaluate their ideas and products against their own design criteria and consider the views

of others to improve their work.

of others to improve their work.

	 mainly through discussions, comparisons and simple written evaluations; explain positives and things to improve for existing products; explore what materials products are made from; talk about their design ideas and what they are making; as they work, start to identify strengths and possible changes they might make to refine their existing design; evaluate their products and ideas against their simple design criteria; start to understand that the iterative process sometimes involves repeating different stages of the process. 	 They understand how key events and individuals in design and technology have helped shape the world. Children can: a explore and evaluate existing products, explaining the purpose of the product and whether it is designed well to meet the intended purpose; b explore what materials/ingredients products are made from and suggest reasons for this; c consider their design criteria as they make progress and are willing to alter their plans, sometimes considering the views of others if this helps them to improve their product; d evaluate their product against their original design criteria; e evaluate the key events, including technological developments, and designs of individuals in design and technology that have helped shape the world. 	They understand how key events and individuals in design and technology have helped shape the world. Children can: a complete detailed competitor analysis of other products on the market; b critically evaluate the quality of design, manufacture and fitness for purpose of products as they design and make; c evaluate their ideas and products against the original design criteria, making changes as needed.
Technical Knowledge	KS1 Design and Technology National Curriculum Children build structures, exploring how they can be made stronger, stiffer and more stable.	KS2 Design and Technology National Curriculum Children apply their understanding of how to strengthen, stiffen and reinforce more complex structures.	KS2 Design and Technology National Curriculum Children apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
	They explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. Children can: a build simple structures, exploring how they can be made stronger, stiffer and more stable; b talk about and start to understand the simple working characteristics of	They understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]. They understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]. They apply their understanding of computing to program, monitor and control their products. Children can:	They understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]. They understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]. They apply their understanding of computing to program, monitor and control their products.

	materials and components; c explore and create products using mechanisms, such as levers, sliders and wheels.	 a understand that materials have both functional properties and aesthetic qualities; b apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products; c understand and demonstrate how mechanical and electrical systems have an input and output process; d make and represent simple electrical circuits, such as a series and parallel, and components to create functional products; e explain how mechanical systems such as levers and linkages create movement; f use mechanical systems in their products. 	 Children can: a apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products; b understand and demonstrate that mechanical and electrical systems have an input, process and output; c explain how mechanical systems, such as cams, create movement and use mechanical systems in their products; d apply their understanding of computing to program, monitor and control a product. 	
Cooking and Nutrition	KS1 Design and Technology National Curriculum	KS2 Design and Technology National Curriculum	KS2 Design and Technology National Curriculum	
NUUTUON	Children use the basic principles of a healthy and varied diet to prepare dishes.	Children understand and apply the principles of a healthy and varied diet.	Children understand and apply the principles of a healthy and varied diet.	
	They understand where food comes from. Children can: a explain where in the world different foods originate from; b understand that all food comes from plants or animals; c understand that food has to be farmed, grown elsewhere (e.g. home) or caught; d name and sort foods into the five groups in the Eatwell Guide; e understand that everyone should eat at least five portions of fruit and vegetables every day and start to explain why; f use what they know about the Eatwell Guide	They prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. They understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. Children can: a start to know when, where and how food is grown (such as herbs, tomatoes and strawberries) in the UK, Europe and the wider world; b understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically;	They prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. They understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. Children can: a know, explain and give examples of food that is grown (such as pears, wheat and potatoes), reared (such as poultry and cattle) and caught (such as fish) in the UK, Europe and the wider world; b understand about seasonality, how this may affect the food availability and plan recipes according to seasonality;	

to design and prepare dishes.	 with support, use a heat source to cook ingredients showing awareness of the need to control the temperature of the hob and/or oven; 	c understand that food is processed into ingredients that can be eaten or used in cooking;
	 d use a range of techniques such as mashing, whisking, crushing, grating, cutting, kneading and baking; 	d demonstrate how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where
	e explain that a healthy diet is made up of a variety and balance of different food and drink, as represented in the Eatwell Guide and be able to apply these principles when planning	 appropriate, the use of a heat source; demonstrate how to use a range of cooking techniques, such as griddling, grilling, frying and boiling;
	and cooking dishes; f understand that to be active and healthy, nutritious food and drink are needed to provide energy for the body;	f explain that foods contain different substances, such as protein, that are needed for health and be able to apply these principles when planning and preparing dishes;
	 g prepare ingredients using appropriate cooking utensils; h measure and weigh ingredients to the nearest gram and millilitre; 	g adapt and refine recipes by adding or substituting one or more ingredients to change the appearance, taste, texture and aroma;
	i start to independently follow a recipe;j start to understand seasonality.	h alter methods, cooking times and/or temperatures;
		i measure accurately and calculate ratios of ingredients to scale up or down from a recipe;
		j independently follow a recipe.

Skills Progression

DT

Skills	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
Design	Explore different	Developing ideas	Developing ideas	Work confidently	Work confidently	Work confidently	Work confidently
	materials freely,	within a range of	within a range of	within a range of	within a range of	within a range of	within a range of
	in order to	contexts, such as	contexts, such as	contexts, such as	contexts, such as	contexts, such as the	contexts, such as the
	develop their	imaginary, story-	imaginary, story-	the home, school	the home, school,	home, school, leisure,	home, school,
	ideas about how	based, home,	based, home,	and leisure.	leisure and culture.	culture and	leisure, culture,
	to use them and	school, gardens,	school, gardens,		Familia haaa	enterprise.	enterprise, industry
	what to make.	playgrounds and	playgrounds, local	Ch a th at th air	Explain how	-	and the wider
	Francisco and	the local	community,	Show that their	particular parts of	Describe the purpose	environment.
	Explore, use and	community.	industry and the wider environment.	design meets a	their products	of their products.	
	refine a variety of artistic effects	State what	wider environment.	range of	work.	Begin to carry out	Indicate the design
	to express their	products they are	Describe what their	requirements?	Gather information	research, using	features of their
	ideas and	designing and	products are for	Begin to put	about the needs	surveys, interviews,	products that will
	feelings.	making and why.	and how they will	together a step-by-	and wants of	questionnaires and	appeal to intended
			work.	step plan which	particular	web-based resources	users and how they
	Return to and	Say whether their		shows the order	individuals and	to come up with a	will meet their
	build on their	products are for	Use simple design	and also what	groups and use	range of ideas.	needs.
	previous	themselves or other	criteria to help	equipment and	these to inform	runge of facus.	Begin to identify the
	learning, refining	users.	develop their ideas.	tools they need.	their ideas.		needs, wants,
	ideas and				then lacas.	Begin to identify the	preferences and
	developing their	Generate some of	Use knowledge of	Indicate the design	Produce a step-by	needs and wants of	values of particular
	ability to	their own ideas by	existing products to	features of their	step plan.	their intended	values of particular
	represent them.	drawing on their	help come up with	products that will		audience.	
		own experiences.	ideas and explain	appeal to intended			

Create collaboratively, sharing ideas, resources and skills.	Develop and communicate ideas by talking and drawing.	why their products are suitable for the intended users. Choose the best tools and materials and give reasons why these are best Describe their design by using pictures, diagrams, models and words.	users and how realistic their plans are? Begin to describe their design using an accurately labelled sketch, cross-sectional drawing or exploded diagram	Develop their own design criteria and use these to inform their ideas. Model their ideas using prototypes and pattern pieces. Use annotated sketches, crosssectional drawings or exploded diagrams to develop and communicate their ideas. Suggest some improvements and say what was good and not so good about their original design	Produce a detailed step-by-step plan Share and clarify ideas through discussion. Also suggest some alternative plans and say what the good points and drawbacks are about each Use annotated sketches, cross-sectional drawings or exploded diagrams to develop and communicate their ideas. Use computer-aided design to develop and communicate their ideas.	individuals and groups. Carry out research, using surveys, interviews, questionnaires and web-based resources. Develop a simple design specification to guide their thinking. Model their ideas using prototypes and pattern pieces. Use computer-aided design to develop and communicate their ideas
				say what was good and not so good about their original	Use computer-aided design to develop and communicate their	pattern pieces. Use computer-aided design to develop

Skill	EYFS	Y1	Y2	Y3	Y4	Y 5	Make design decisions, taking account of constraints such as time, resources and cost.
Make	Explore, use and	With support,	Select from a range	Select tools and	Explain their choice	Select tools and	Select tools and
Make	refine a variety	select from a range	of tools and	equipment suitable	of tools and	equipment suitable	equipment suitable
	of artistic effects	of tools and	equipment,	for the task.	equipment in	for the task.	for the task.
	to express their	equipment,	explaining their		relation to the skills		
	ideas and	explaining their	choices.	Follow procedures	and techniques	Explain their choice of	Explain their choice
	feelings.	choices.		for safety and	they will be using.	tools and equipment	of tools and
	Create		Select from a range	hygiene.		in relation to the skills	equipment in
	collaboratively,	With support,	of materials and		Explain their choice	and techniques they	relation to the skills
	sharing ideas,	select from a range	components	Use a wide range of	of materials and	will be using.	and techniques they
	resources and	of materials and	according to their	materials and	components		will be using.
	skills.	components	characteristics.	components,	according to	Select materials and	
		according to their		including	functional	components suitable	Explain their choice
		characteristics.	Follow procedures	construction	properties and	for the task. Produce	of materials and
			for safety and	materials and kits,	aesthetic qualities.	appropriate lists of	components
		Follow procedures	hygiene.	textiles, food	- "	tools, equipment and	according to
		for safety and	11	ingredients,	Follow procedures	materials that they	functional properties
		hygiene.	Use a range of	mechanical	for safety and	need.	and aesthetic
		lles a range of	materials and	components and	hygiene.	Follow procedures for	qualities.
		Use a range of materials and	components,	electrical	Uso a wide range of	Follow procedures for	Droduce appropriate
			including construction	components.	Use a wide range of materials and	safety and hygiene.	Produce appropriate lists of tools,
		components, including	materials and kits,	Begin to measure,	components,	Use a wide range of	equipment and
		construction	textiles, food	mark out, cut and	including	materials and	materials that they
		materials and kits,	ingredients and	shape materials	construction	components, including	materials triat tricy

textiles, food	l mechanical	and components	materials and kits,	construction materials	need.
ingredients a	and components.	with some	textiles, food	and kits, textiles, food	
mechanical		accuracy.	ingredients,	ingredients,	Follow procedures
components	. Measure, mark out,		mechanical	mechanical	for safety and
	cut and shape	Begin to assemble,	components and	components and	hygiene.
With suppor	t, materials and	join and combine	electrical	electrical	
measure, ma	ark out, components.	materials and	components.	components.	Use a wide range of
cut and shap	e	components with			materials and
materials an	d Assemble, join and	some accuracy.	Measure, mark out,	Accurately measure,	components,
components	. combine materials		cut and shape	mark out, cut and	including
	and components.	Apply a range of	materials and	shape materials and	construction
With suppor	t, Use finishing	finishing	components with	components.	materials and kits,
assemble, jo	in and techniques,	techniques,	some accuracy.		textiles, food
combine ma	terials including those	including those		Accurately assemble,	ingredients,
and compon	ents. from art and	from art and	Assemble, join and	join and combine	mechanical
	design.	design.	combine materials	materials and	components and
Prepare simp	ole		and components	components and show	electrical
dishes safely	and Prepare simple	With support,	with some	perseverance and	components.
hygienically,	dishes safely and	prepare and cook a	accuracy.	adaptability when	
without usin	g a hygienically,	variety of		mistakes are made	Accurately measure,
heat source.	without using a	predominantly	Refer to their		mark out, cut and
	heat source.	savoury dishes	design criteria as	Accurately apply a	shape materials and
Use techniqu		safely and	they design and	range of finishing	components.
such as cutti	ng, Use techniques	hygienically	make. Apply a	techniques, including	
peeling and	grating. such as cutting,	including, where	range of finishing	those from art and	Accurately assemble,
	peeling and grating.	appropriate, the	techniques,	design.	join and combine
		use of a heat	including those		materials and
		source.	from art and	Prepare and cook a	components. Change
			design, with some	variety of	the way there are
		With support, use a	accuracy.	predominantly	working if necessary
		range of techniques		savoury dishes safely	
		such as peeling,		and hygienically	

				chopping, slicing, grating, mixing, spreading, kneading and baking.	Prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. Use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.	including, where appropriate, the use of a heat source. Use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.	Accurately apply a range of finishing techniques, including those from art and design. Use techniques that involve a number of steps. Demonstrate resourcefulness when tackling practical problems. Prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. Use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.
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Skill	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
		T. II	7 II	11 .:6 .1			
Evaluate	Return to and	Talk about their	Talk about their	Identify the	Identify the	Identify the strengths	Identify the
	build on their	design ideas and	design ideas and	strengths and areas	strengths and areas	and areas for	strengths and areas
	previous	what they are	what they and	for development in	for development in	development in their	for development in
	learning, refining	making as well as	others are making.	their ideas and	their ideas and	ideas and products to	their ideas and
	ideas and	comment on things		products	products	ensure that it is the	products throughout
	developing their	others have done	Make judgements		evaluating whether	best it can be.	construction.
	ability to		about theirs and	Begin to consider	their product it		
	represent them.	Make simple	other's products	the views of others,	successful or not	Consider the views of	Consider the views
		judgements about	and ideas against	including intended		others, including	of others, including
		their products and	design criteria.	users, to improve	Consider the views	intended users, to	intended users, to
		ideas against design		their work.	of others, including	improve their work.	improve their work.
		criteria.	Explain what went		intended users, to		
			well and suggest	With support, use	improve their work.	Begin to critically	Critically evaluate
		Begin to suggest	how their products	their design criteria		evaluate the quality of	the quality of the
		how their products	could be improved	to evaluate their	Use their design	the design,	design, manufacture
		could be improved.	if they did it again.	completed	criteria to evaluate	manufacture and	and fitness for
				products.	their completed	fitness for purpose of	purpose of their
		Begin to evaluate	Evaluate existing		products.	their products as they	products as they
		existing products	products	Begin to evaluate		design and make.	design and make.
		considering:	considering:	existing products	Evaluate existing		
		*what products	*what products	considering:	products	Begin to evaluate	Evaluate their ideas
		are,	are,	*how well products	considering:	their ideas and	and products against
		*who products are	*who products are	have been	*how well products	products against their	their original design
		for,	for,	designed,	have been	original design	specification.
		*what products are	*what products are	*how well products	designed,	specification.	
		for,	for,	have been made,	*how well products		Investigate and
		*what materials	*how products are	*why materials	have been made,	Investigate and	analyse existing
		products are made	used,	have been chosen,	*why materials	analyse existing	products
		from.	*where products	*what methods of	have been chosen,	products considering:	considering:

then decide	working	working	to design and make	to design and make	design and make	design and make
which materials	characteristics of	characteristics of	products that work.	products that work.	products that work.	products that work.
to use to express	materials and	materials and				
them.	components.	components.	Explain in simple	Explain that	Explain that materials	Explain that
			terms that that	materials have both	have both functional	materials have both
Join different	Name simple	Name the	materials have both	functional	properties and	functional properties
materials and	mechanisms (such	movements of	functional	properties and	aesthetic qualities and	and aesthetic
explore different	as levers and	simple mechanisms	properties and	aesthetic qualities.	begin to use this	qualities and use this
textures	sliders).	(such as levers,	aesthetic qualities.		knowledge when	knowledge when
		sliders, wheels and		Explain that	designing products.	designing products.
	Use the correct	axles).	Explain in simple	materials can be		
	technical		terms that	combined and	Begin to use their	Use their knowledge
	vocabulary for the	Explain how	materials can be	mixed to create	knowledge of how	of how materials can
	projects they are	freestanding	combined and	more useful	materials can be	be combined and
	undertaking.	structures can be	mixed to create	characteristics.	combined and mixed	mixed to create
		made stronger,	more useful		to create more useful	more useful
	Understand how to	stiffer and more	characteristics.	Understand how to	characteristics when	characteristics when
	use simple tools	stable.		create movement	designing products.	designing products.
	effectively and		Understand how to	through the use of		
	safely.	Use the correct	create movement	mechanical systems	Use mechanical	Use their knowledge
		technical	through the use of	(such as levers and	systems (such as cams	of mechanical and
	To understand that	vocabulary for the	mechanical systems	linkages or	or pulleys or gears to	electrical systems
	different tools are	projects they are	(such as levers and	pneumatic systems	create movement.)	having an input,
	used for specific	undertaking.	linkages or	to create		process and output
	purposes.		pneumatic systems	movement)	Begin to use their	when designing
		To understand that	to create		knowledge of	products.
	To understand the	different tools are	movement).	Explain that	mechanical and	
	role of health and	used for specific		mechanical and	electrical systems	Use mechanical
	safety within design	purposes.	Explain in simple	electrical systems	having an input,	systems (such as
	and technology.		terms that	have an input,	process and output	cams or pulleys or
		To understand the	mechanical and	process and output.	when designing	gears to create
		role of health and	electrical systems			

	safety wi	ithin design	have an input,	Apply their	products.	desired movement.)
	and tech	•	process and output.	understanding of	products.	desired movement.
	and teem	mology.	process and output.	computing to	Use electrical circuits	Effectively use
			Use the correct	programme,	and components to	electrical circuits and
			technical	monitor and	create functional	components to
			vocabulary for the	control their	products.	create functional
			projects they are	products.	products.	products.
			undertaking.	products.	Apply their	products.
			undertaking.	Demonstrate how		Apply thair
			Ta		understanding of	Apply their
			To understand that	to make strong,	computing to	understanding of
			different tools are	stiff shell	programme, monitor	computing to
			used for specific	structures.	and control their	programme, monitor
			purposes.	Llaa tha aawaat	products to produce a	and control their
			To understand the	Use the correct	desired effect.	products to produce
			role of health and	technical	D	a desired effect.
				vocabulary for the	Demonstrate how to	B
			safety within design	projects they are	reinforce and	Demonstrate how to
			and technology.	undertaking.	strengthen a 3D	reinforce and
					framework.	strengthen a 3D
				To understand that		framework
				different tools are	Use the correct	effectively.
				used for specific	technical vocabulary	
				purposes.	for the projects they	Use the correct
				T	are undertaking.	technical vocabulary
				To understand the	T	for the projects they
				role of health and	To understand that	are undertaking.
				safety within design	different tools are	
				and technology.	used for specific	To understand that
					purposes.	different tools are
					T	used for specific
					To understand the	purposes.
					role of health and	

						safety within design and technology.	To understand the role of health and safety within design and technology.
Skill	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
Food and cooking	EYPS	Explain that all food comes from plants or animals. Know that everyone should eat at least five portions of fruit and vegetables every day.	Explain that food ingredients should be combined according to their sensory characteristics. Explain that food has to be farmed, grown elsewhere (e.g. home) or caught. Name and sort foods into the five groups. Know that everyone should eat at least five portions of fruit and vegetables	Describe a healthy diet, identifying the importance of a variety and balance of different foods and drinks. Describe how food is needed to provide energy for the body. Know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish).	Explain that a healthy diet is made up from a variety and balance of different foods and drinks and give examples. Explain that to be active and healthy, food is needed to provide energy for the body. Explain that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the	Explain that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK and Europe. Begin to adapt recipes to change the appearance, taste, texture and aroma. Know that different foods contain different substances - nutrients, water and fibre - that are needed for health.	Explain that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world. Adapt recipes to change the appearance, taste, texture and aroma. Explain that different foods contain different substances - nutrients, water and fibre - that are
			every day.		UK. Know that food ingredients can be	Explain that seasons may affect the food available.	needed for health. Explain that seasons may affect the food

		fresh, pre-cooked and processed.	Know that food is processed into	available and give examples.
			ingredients that can be eaten or used in cooking.	Know that a recipe can be adapted a by adding or
			Know that a recipe can be adapted a by adding or substituting one or more ingredients.	substituting one or more ingredients and discuss the effect on the final product.

DT Vocabulary Progression

*Some vocabulary reoccurs in more than one year-group and all vocabulary is revisited to ensure secure vocabulary acquisition.

	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
Adjectives	Hard	Hard	Hard	Hard	Hard	Hard	Hard
(materials	Soft	Soft	Soft	Soft	Soft	Soft	Soft
and		Shiny	Shiny	Shiny	Shiny	Shiny	Shiny
products)		Smooth	Smooth	Smooth	Smooth	Smooth	Smooth
		Flexible	Flexible	Flexible	Flexible	Flexible	Flexible
		Rigid	Rigid	Rigid	Rigid	Rigid	Rigid
		Stable	Stable	Stable	Stable	Stable	Stable
		Waterproof	Waterproof	Waterproof	Waterproof	Waterproof	Waterproof
			Natural	Natural	Natural	Natural	Natural
			Man made				

				Synthetic	Synthetic	Synthetic	Synthetic
				Dry	Dry	Dry	Dry
				Rough	Rough	Rough	Rough
					Malleable	Malleable	Malleable
					Conductive	Conductive	Conductive
					Non-conductive	Non-conductive	Non-conductive
						Mobile	Mobile
							Reflective
							Abrasive
							Brittle
							Opaque
							Rigid
							Synthetic
							Translucent
							Transparent
Design	Idea	Idea	Idea	Idea	Idea	Idea	Idea
	Draw	Draw	Draw	Draw	Draw	Draw	Draw
		Sketch	Sketch	Sketch	Sketch	Sketch	Sketch
		Design	Design	Design	Design	Design	Design
		Choices	Choices	Choices	Choices	Choices	Choices
		Explore	Explore	Explore	Explore	Explore	Explore
		Purpose	Purpose	Purpose	Purpose	Purpose	Purpose
		Research	Research	Research	Research	Research	Research
		Survey	Survey	Survey	Survey	Survey	Survey
			Structure	Structure	Structure	Structure	Structure
			Arch	Arch	Arch	Arch	Arch
			Truss	Truss	Truss	Truss	Truss
			Strength	Strength	Strength	Strength	Strength
				Specification	Specification	Specification	Specification

1	 				
		Market Research	Market Research	Market Research	Market Research
		Mock up	Mock up	Mock up	Mock up
		Pattern	Pattern	Pattern	Pattern
		Diagram	Diagram	Diagram	Diagram
		Annotated diagram	Annotated diagram	Annotated diagram	Annotated diagram
		Design brief	Design brief	Design brief	Design brief
		Final design	Final design	Final design	Final design
		Function	Function	Function	Function
		Intended	Intended	Intended	Intended
		Inform	Inform	Inform	Inform
		Plan	Plan	Plan	Plan
		Scale	Scale	Scale	Scale
			Exploded drawing	Exploded drawing	Exploded drawing
			Flow chart	Flow chart	Flow chart
			Horizontal	Horizontal	Horizontal
			Vertical	Vertical	Vertical
			Perpendicular	Perpendicular	Perpendicular
			Technique	Technique	Technique
			Trends	Trends	Trends
			Fashion	Fashion	Fashion
				Parts drawing	Parts drawing
				Parts list	Parts list
				Three dimensional	Three dimensional
				Assembly	Assembly
				Disassembly	Disassembly
				Enlarged view	Enlarged view
				Perspective	Perspective
				Proportion	Proportion
				Working drawing	Working drawing

Make	Build	Build	Build	Build	Build	Build	Cross section Customer Ergonomics Sustainability Sequential Build
	Balance	Balance Shaping Construct Stick Glue	Balance Shaping Construct Stick Glue Spinning Knot Dye Strength Attach Cut	Balance Shaping Construct Stick Glue Spinning Knot Dye Strength Attach Cut Free standing Shape Apply Assemble Saw	Balance Shaping Construct Stick Glue Spinning Knot Dye Strength Attach Cut Free standing Shape Apply Assemble Saw Tesselate Dimensions Pattern Join Accuracy	Balance Shaping Construct Stick Glue Spinning Knot Dye Strength Attach Cut Free standing Shape Apply Assemble Saw Tesselate Dimensions Pattern Join Accuracy Appropriate	Balance Shaping Construct Stick Glue Spinning Knot Dye Strength Attach Cut Free standing Shape Apply Assemble Saw Tesselate Dimensions Pattern Join Accuracy Appropriate
						Refine	Refine

Evaluate	Same	Same	Same	Same	Same	Competent Manipulate	Competent Manipulate Deliberate Scoring Process Same
	Different	Different Similarities Differences Compare Evaluate Successful Unsuccessful	Different Similarities Differences Compare Evaluate Successful Unsuccessful Improve Function Strength Freestanding Durability Likes/dislike Feedback	Different Similarities Differences Compare Evaluate Successful Unsuccessful Improve Function Strength Freestanding Durability Likes/dislike Feedback Review Effective Ineffective Satisfied Unsatisfied	Different Similarities Differences Compare Evaluate Successful Unsuccessful Improve Function Strength Freestanding Durability Likes/dislike Feedback Review Effective Ineffective Satisfied Unsatisfied Improve Accuracy Finish	Different Similarities Differences Compare Evaluate Successful Unsuccessful Improve Function Strength Freestanding Durability Likes/dislike Feedback Review Effective Ineffective Satisfied Unsatisfied Improve Accuracy Finish	Different Similarities Differences Compare Evaluate Successful Unsuccessful Improve Function Strength Freestanding Durability Likes/dislike Feedback Review Effective Ineffective Satisfied Unsatisfied Improve Accuracy Finish

						Performance	Performance
						Qualities	Qualities
						Viability	Viability
							Effects
							Outcomes
							Revisit
Cooking and	Food	Food	Food	Food	Food	Food	Food
Nutrition	Eat	Eat	Eat	Eat	Eat	Eat	Eat
	Cook	Cook	Cook	Cook	Cook	Cook	Cook
		Chopping board					
		Knife	Knife	Knife	Knife	Knife	Knife
		Grate	Grate	Grate	Grate	Grate	Grate
		Ingredient	Ingredient	Ingredient	Ingredient	Ingredient	Ingredient
		Healthy	Healthy	Healthy	Healthy	Healthy	Healthy
		Hygiene	Hygiene	Hygiene	Hygiene	Hygiene	Hygiene
		Hygienic	Hygienic	Hygienic	Hygienic	Hygienic	Hygienic
		Recipe	Recipe	Recipe	Recipe	Recipe	Recipe
		Peel	Peel	Peel	Peel	Peel	Peel
		Combine	Combine	Combine	Combine	Combine	Combine
		Blend	Blend	Blend	Blend	Blend	Blend
		Sweet	Sweet	Sweet	Sweet	Sweet	Sweet
		Tangy	Tangy	Tangy	Tangy	Tangy	Tangy
			Measure	Measure	Measure	Measure	Measure
			Measuring bowl				
			Measuring jug				
			Scales	Scales	Scales	Scales	Scales
			Mix	Mix	Mix	Mix	Mix
				Flavour	Flavour	Flavour	Flavour
				Texture	Texture	Texture	Texture

			Taste	Taste Digestion Balanced	Taste Digestion Balanced	Taste Digestion Balanced Cuisine Culture
Mechanisms	Slider	Slider Lift Weight Mechanism Lever Raise Lower	Slider Lift Weight Mechanism Lever Raise Lower Load Friction Pulley	Slider Lift Weight Mechanism Lever Raise Lower Load Friction Pulley Axle Electricity Energy Battery Circuit Current Buzzer Light Switch Lightbulb Bulb holder	Slider Lift Weight Mechanism Lever Raise Lower Load Friction Pulley Axle Electricity Energy Battery Circuit Current Buzzer Light Switch Lightbulb Bulb holder Force Motion	Slider Lift Weight Mechanism Lever Raise Lower Load Friction Pulley Axle Electricity Energy Battery Circuit Current Buzzer Light Switch Lightbulb Bulb holder Force Motion

				Series circuit
				Parallel circuit